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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,908	10/21/2003	Toshiki Sakabayashi	2003-1512A	3752

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WENDEROTH, LIND & PONACK, L.L.P.  
2033 K STREET N. W.  
SUITE 800  
WASHINGTON, DC 20006-1021

EXAMINER
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RODRIGUEZ, RUTH C

ART UNIT	PAPER NUMBER
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3677

DATE MAILED: 08/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/688,908

Applicant(s)

SAKABAYASHI, TOSHIKI

Examiner

Ruth C. Rodriguez

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 8-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-25 is/are allowed.
- 6) ☒ Claim(s) 8-11 and 16 is/are rejected.
- 7) ☒ Claim(s) 12-15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 8-11 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Pozzobon et al. (US 4,870,723).

A shoestring tying apparatus (1) comprises a fastening member (32), a rotational member (30), a fitting portion and a driving mechanism (2). The fastening member tightens a shoestring (Figs. 1-3). The fastening member includes a disk (32,34) connected to one end of the shoestring (37,38) and an operating member (31,33) rotates the disk so as to wind the shoestring (C. 3, L. Figs. 33-36). The rotational member (30) engages the fastening member and rotates the operating member of the fastening member in a winding direction so as to wind the shoestring around the disk when the rotational member is rotated in a predetermined direction to thereby tighten the shoestring (C. 3, L. 33-36). The rotational member engages the fastening member and prevents rotation of the operating member of the fastening member in a direction opposite the winding direction when rotation of the rotational member is stopped, thereby maintaining tension of the shoestring (C. 3, L. 42-66). The rotational member

disengages the fastening member to allow rotation of the operating member of the fastening member in the direction opposite the winding direction to thereby releasing the tension of the shoestring (C. 3 L. 66-68 and C. 4, L. 1-2). The fitting portion (gear of 30) connects the rotational member to the operating member of the fastening member (Figs. 1-3). The driving mechanism (2,3,7,50,51) rotates the rotational member in the predetermined direction (C. 4, L. 36-43 and Figs. 1-3). The driving mechanism manually or automatically rotates the operating member via the rotational member so as to rotate the disk of the fastening member to thereby tightening the shoestring (C. 4, L. 36-43 and Figs. 1-3). The driving mechanism includes a spring member (50,51) such that as the rotational member is rotated in the predetermined direction the spring member is wound (C. 3, L. 56-68 and C. 4, L. 1 and 2).

The fitting portion is integrally connected to the rotational member such that the fitting portion and the rotational member have a one-piece construction (Figs. 1-3). The fitting portion has a contact surface (gear) for contacting a contact surface (31,33) of the operating member (Figs. 1-3).

The fitting portion comprises an external gear. The operating member has an internal gear (31,33) engaging the external gear integrally connected to the rotational member (Figs. 1-3).

The rotational member is located between the drive means and the fastening member (Figs. 1-3).

***Allowable Subject Matter***

3. Claims 17-25 are allowed.
4. Claims 12-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. The following is a statement of reasons for the indication of allowable subject matter:
6. For claim 12, Pozzoban discloses a shoestring tying apparatus having all the features disclosed above in paragraph 2 for the rejection of claim 8. The driving mechanism disclosed by Pozzoban is a knob (3). Pozzoban fails to disclose that the driving mechanism comprises a cylindrical storage member, an elastic member, an operating cord and a restricting device. Accordingly, it would not have been obvious to one having ordinary skill in the art at the time the invention was made to replace the knob disclosed by Pozzoban as the driving mechanism for a cylindrical storage member, an elastic member, an operating cord and a restricting device.
7. Regarding claim 17, Morell discloses a shoestring tying apparatus having all the limitations listed above in paragraph 5 for the rejection of claim 8. Additionally, Morell also discloses that the rotational member includes a cylindrical portion and a rotational shaft with an elastic member in the cylindrical portion and a two-piece cover member. However, Morell fails to disclose that the shoestring tying apparatus further comprises a ratchet in the cylinder portion, an operating cord to be wound on the cylinder portion,

that the elastic member has a first end fixed to the rotating shaft of the rotational member and that the cover member stores the operating cord. Consequently, it would not have been obvious to one having ordinary skill in the art at the time of applicant's invention to modify the apparatus disclosed by Morell with a ratchet in the cylinder portion, an operating cord to be wound on the cylinder portion, having the elastic member with a first end fixed to the rotating shaft of the rotational member and having the cover member stores the operating cord.

8. For claim 19, Morell discloses a shoestring tying apparatus having all the features discloses above in paragraph 5 for the rejection of claim 8. In addition to the features added in claim 17 that were not disclosed by Morell, claim 19 also include a plurality of pawls, the ratchet that has pawl-storage sections and a spring storage member that are not disclosed by Morell. As a result, it would not have been obvious to one having ordinary skill in the art at the time the invention was made to have the shoestring tying apparatus having the features disclosed by Morell with a plurality of pawls, the ratchet that has pawl-storage sections and a spring storage member in addition to the features missing from Morell as defined by claim 17.

9. Regarding claim 24, Morell discloses a shoestring tying apparatus having all the limitations listed above in paragraph 5 for the rejection of claim 8. Morell disclose that the rotational member includes an internal gear. However, Morell fails to disclose that the rotational member has an engaging gear, the operating member has a plurality of pawls, a cylindrical engaging gear and a gear set, a ratchet engaging the gear set and an operating cord. As a result it would not have been obvious to one having ordinary

skill in the art at the time of applicant's invention to have the rotational member with an engaging gear, the operating member with a plurality of pawls, a cylindrical engaging gear and a gear set, a ratchet engaging the gear set and an operating cord.

### ***Response to Arguments***

Applicant's arguments with respect to claims 8-11 and 16 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Baggio et al. (US 4,799,297), Bidoia (US 4,961,544) and Schoch (US 5,042,177) are cited to show state of the art with respect to shoestring tying apparatus having some of the features being claimed by the current application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth C Rodriguez whose telephone number is (571) 272-7070. The examiner can normally be reached on M-F 07:15 - 15:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on (571) 272-7075.

Submissions of your responses by facsimile transmission are encouraged. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-6640.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.



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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ruth C. Rodriguez  
Patent Examiner  
Art Unit 3677

*RCR*

rcr

July 25, 2005

A handwritten signature in black ink that reads "Daniel P. Stodola". The signature is written in a cursive style with a large, looped initial "D".

DANIEL P. STODOLA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600